

Work Order ID 153493

Monday, November 21, 2016 9:23:33 AM

153493

Page 1

Item ID: D4527-3 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bracket
 Start Date: 11/15/2016 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 11/21/2016 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: Process Plan: DAS 21 Date: NOV 21 2016 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: 9-89 Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D4527	B
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110

0.00

110

Waterjet

FLOW CNC Waterjet

Memo

CUT AS DWG

DWG REV: B

PROG REV: B

DEBURR

0.34

(4) ϕ ac 11/21/30

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Quality Control

Memo

0.01

(4) ϕ ac 11/21/30

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube ☐</td> <td style="width:15%;">Cross tube ☐</td> <td style="width:15%;">Water Jet ☐</td> <td style="width:15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
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153493

Monday, November 21, 2016 9:23:33 AM

N900040100

Setup Start *NS1*

Stop ***NS2***

4

Cust Item ID:

Start Date: 11/15/2016 **Start Qty:** 4.00

Required Date: 11/21/2016 **Req'd Qty:** 4.00

4

Customer:

Reference:

Run Start *NR1*

Approvals: _____ **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐			FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
OTHER :					

Monday, November 21, 2016 9:23:33 AM

153493

Page 3

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Start Date: 11/15/2016 **Start Qty:** 4.00 ***4***

Required Date: 11/21/2016 **Req'd Qty:** 4.00 ***1***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

**Insp.
Stamp**

160 Chemical Conversion Coat per QSI005 4.1

0.00

160

Memo

0.06

HandFinish

Hand Finishing

170 QC7-Inspect Chemical Conversion Coat

0.00

170

Memo

0.01

QC

Quality Control

Identify as per dwg & Stock Location: 5449 0.00

0.00

180

Memo

0.01

Packaging

Packaging

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:12.5%;">Skid-tube ☐</td> <td style="width:12.5%;">Cross tube ☐</td> <td style="width:12.5%;">Water Jet ☐</td> <td style="width:12.5%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Work Order ID 153493

Monday, November 21, 2016 9:23:33 AM

153493

Page 4

Item ID: D4527-3

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Bracket

Start Date: 11/15/2016 Start Qty: 4.00

4

Cust Item ID:

Required Date: 11/21/2016 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC21- Final Inspection - Work Order Release

0.00

190DAS
21
9-89

DEC 14 2016

QC

Memo

0.07

Quality Control

MF
16-12-13

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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OTHER :																					

Picklist Print

Monday, November 21, 2016 9:23:33 AM

Work Order ID: 153493

153493

Parent Item: D4527-3

D4527-3

Parent Item Name: Bracket

Start Date: 11/15/2016

Required Date: 11/21/2016

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A 11.11.29 NEW ISSUE DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B0.750X08.00 0		Purchased	No				f	12.0000		3.157895			

M6061T6B0 750X08 000

DE 11/11/30

6061-T6 BAR .750" X 8.00"

Location

Loc Qty

Loc Code

MAT003

12

m135779

12

2.5

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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DART AEROSPACE LTD		Work Order: 153493
Description: Bracket		Part Number: D4527-3
Inspection Dwg: D4527	Rev: B	Page 1 of 1

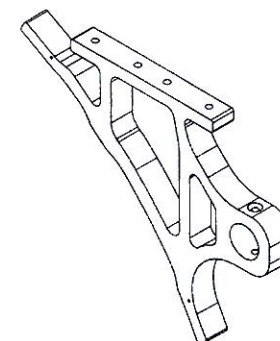
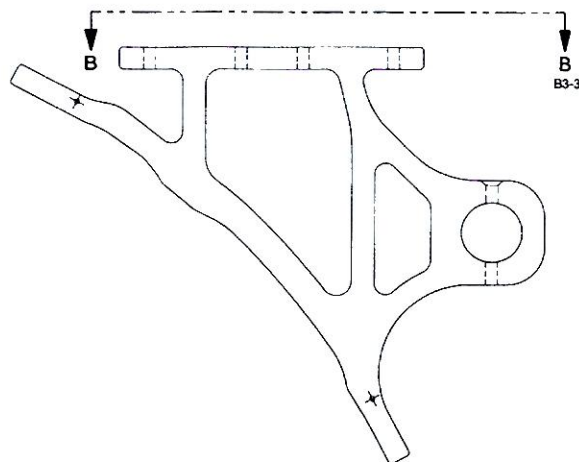
INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.05	+/-0.030	1.05	✓			
3.85	+/-0.030	3.85	✓			
5.03	+/-0.030	5.019	✓			
5.16	+/-0.030	5.16	✓			
7.03	+/-0.030	7.03	✓			
1.79	+/-0.030	1.79	✓			
0.38	+/-0.030	0.386	✓			
1.97	+/-0.030	1.97	✓			
2.250	+/-0.010	2.243	✓			
4.00	+/-0.030	4.00	✓			
4.20	+/-0.030	4.20	✓			
7.03	+/-0.030	7.03	✓			
0.38	+/-0.030	0.375	✓			
4.82	+/-0.030	4.82	✓			
0.75	+/-0.030	0.75	✓			
Ø0.080	+0.004/-0.001	0.081	✓		Caliper	3CL-08
1.13	+/-0.030	1.134	✓			
0.13	+/-0.030	0.130	✓			
1.13	+/-0.030	1.135	✓			
0.13	+/-0.030	0.132	✓			
Ø1.000	+0.003/-0.000	1.000	✓			
3.125	+/-0.010	3.128	✓		H.C.	31006
0.875	+/-0.010	0.880	✓		"	
Ø0.196	+0.005/-0.001	0.196	✓		Caliper	3CL-08
CSK Ø0.377 x 100°	+/-0.010 x +/-0.5°	0.380	✓			
0.875	+/-0.010	0.875	✓			
Ø0.201	+0.005/-0.001	0.204	✓		Caliper	3CL-08
0.500	+/-0.010	0.500	✓			
1.500	+/-0.010	1.500	✓			
2.530	+/-0.010	2.530	✓			
1.500	+/-0.010	1.500	✓			

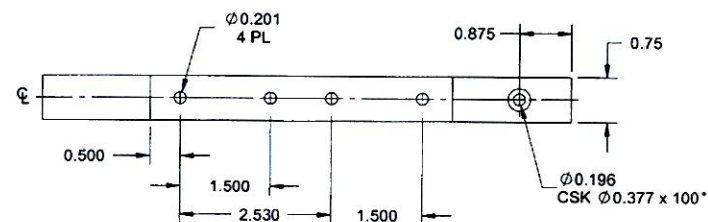
Measured by: <i>32</i>	Checked by: <i>DAS</i>	QC Inspector:
Date: 16/11/30 06-12-08	Date: 16-12-08	Date:

Engineering Approval: (If necessary)	Date:
--	--------------

Rev	Date	Change	Revised by	Approved
A	12.02.01	New Issue	KJ	
B	15.02.26	Dimensions updated per Dwg Rev B	KJ	
C	15.04.24	Dimensions added	KJ	



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WORK ORDER
NO. 153493 MJS
16-11-21



SECTION VIEW B-B B5-3

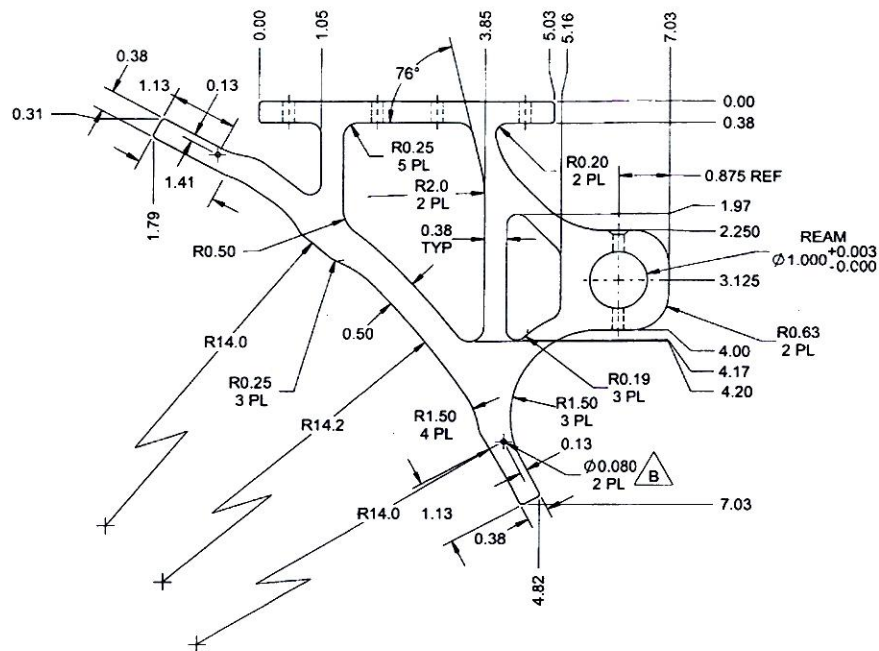
D4527-3 BRACKET

NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
OR 6061-T6/T62 ALUMINUM SHEET
PER QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS 4025 OR AMS 4027
OR ASTM B209
REF DART SPEC. M6061T6B/M6061T6S
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.90 lbs

RELEASED
2012-10-31

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	KENT, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D4527	SHEET 3 OF 4
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	BRACKET	NTS
DATE	12.09.18	COPYRIGHT © 2011 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



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